

Something I would really like you to note is the size of China and India. Between the two of them, they don't have as much oil as the United States, and they have about 2.5 billion people between the two of them.

Now, as a result of this disparity between how much oil they have and how big their population is, the next chart will show us what China has been led to do. This is a map of the world which shows where a number of people have staked their claim, that is, own oil reserves. Notice in how many parts of the world the symbol for China appears.

This chart is a little old, and at the time we started using this chart, China was dickering to buy Unocal, an oil company in our country. Well, a lot of people thought that was just awful. I didn't think the sky would fall if they did that, because the reality is in today's world it doesn't really matter who owns the oil. We own an absolute trifling amount of oil in the world.

The fellow who owns the oil and the fellow who comes with the dollars, and if, by the way, if the currency ever changes from dollars to Euros, that will be a tough day for our country, but the person who has the dollars gets the oil. So you might ask why is China buying up all this oil.

I asked the State Department that question, and they told me it's because they don't understand the economic realities. They don't really understand that it doesn't matter who owns the oil, that the person who has the dollars buys the oil. My response was, gee, it's a little hard for me to believe that a country of 1.3 billion people, which is growing for the last quarter, I saw data, 11.4 percent, we never grew at anything like that. Japan in its heyday didn't grow anything like that. A country growing 11.4 percent that doesn't understand economics is hard for me to believe.

You may note at the same time they are buying up this oil they are aggressively building a blue water navy. They don't have one. Blue water navy is one that goes out in the deepest waters. We are the only one in the world the Chinese are competing with.

Could it be that they envision a time when there won't be enough oil to go around, and since they own it, they are going to say to the rest of the world, gee, guys, I am sorry, there is not enough oil to go around, and we have 1.3 billion people and so we are going to use it. To make that stick, they are going to need a really big navy to protect their sea lanes. Only the future will tell.

I led a codel of nine people to China talking about energy. It was over last New Year's. I spent last New Year's Eve, as a matter of fact, in Shanghai. They began their discussion of energy there by talking about post oil. Wow. They get it, and I wonder why very few people in our country get it.

They have a five-point program. The first step in their program is the first step in any rational program to address

the challenge we face, and that is conservation. The second and third points in their program was get as much of it as you can from your own country and diversify as much as you can.

The fourth one may surprise you, because they pled for protection of the environment. They are the biggest polluters in the world, and they know that. They are kind of pleading for help, because, gee, we have got 1.3 billion people, 900 million of those in rural areas that are clamoring for the benefits that accrued through industrialization. We have got to really do something about that, and help us to be more efficient.

But the fifth point in their five-point program was a really interesting one. They are pleading for international cooperation.

As they plead for international cooperation, which they hope they get, I doubt that they will, but they have a backup, they are going to buy the oil so that if we don't get international cooperation, at least they have a go-it-alone reasonable probability of doing well in the future.

The next chart shows how we got here, and this tells you why I mentioned the 25 years. It's actually 27 years.

In 1956, a Shell Oil geologist by the name of M. King Hubbert, and if you haven't heard his name before, you will hear it, and I think that the speech he gave 50 years ago last year, I think it was the 8th day of March, to a group of oil executives and engineers and scientists and so forth in San Antonio, Texas. When the United States was king of oil, producing more oil, exporting more oil, I think, than any other country, M. King Hubbert told that group that in just 14 years, by 1970, we were going to reach our maximum oil production. No matter what we did after that time, it was going to go down.

Shell Oil Company asked him, please don't give that speech. You are going to make a fool of yourself and us. He became something of a pariah for a number of years and was relegated to the near-lunatic fringe.

But right on schedule, as this chart shows, in 1970 we peaked in oil production. He predicted that here in 1956, and in 1970 we peaked in oil production.

His prediction was only for the lower 48. We got a bunch of oil in Prudhoe Bay in Alaska and a lot of oil in the Gulf of Mexico, where, by the way, we have drilled more oil wells than in all of Saudi Arabia, four times as many as in all of Saudi Arabia.

It has been downhill ever since 1970 except for a little blip produced by the enormous amount of oil that we got from Prudhoe Bay. I have been there. I have seen that pipeline where it begins, a 4-foot pipeline.

For a number of years a fourth of our total domestic production went through that. Despite that enormous find, it's still down, down, down, and today we are producing half the oil that we produced in 1970.

Remember several years ago those fabled oil discoveries in the Gulf of Mexico which were supposed to secure our future? There it is. That's what it did. Pretty trivial, wasn't it.

The next chart shows an attempt of one of the major think tanks in our country on energy to debunk M. King Hubbert. This is the Cambridge Energy Research Associates, and they present this data, which they say proves that M. King Hubbert didn't know what he was talking about.

Now, if you were a person who dealt with numbers, a statistician, you might see some relevance in that argument. But for the average citizen, this is what you see in the chart.

The yellow symbols here are the predictions of M. King Hubbert. The green is the actual lower 48 production.

Now, he said that it would follow this curve, but it actually followed that curve. Cambridge Energy Research Associates said, gee, isn't that awful, he really missed it, didn't he. I think for the average person looking at that, I am a kind of a layman here in this area, but I am a scientist and I have had courses in statistics, that looks pretty darn close to me. I think he kind of got it, didn't he.

The actual total production, when you add the Gulf of Mexico and Alaska, these red symbols here, and if you add the next chart, if you only had one chart to talk about energy, this would be the one, because this tells you so much.

If ever a picture is worth 1,000 words, this one is. This shows the discoveries of oil. We were discovering lots of it very early, the 1940s, 1950s, huge, huge amounts in the 1960s and 1970s. At just the time when M. King Hubbert predicted we would reach our maximum oil production, 1970, here, we just previously had found enormous amounts of oil.

During those 14 years, 1956 here to 1970, we had found more oil than we ever found before and ever found after that. No wonder, gee, they thought this guy must be an idiot.

But right on schedule we peaked in 1970. By the way, just a little explanation of how he was able to do that. He had observed that each oil field followed a pretty constant kind of curve. The oil was easier and easier to pump until you pumped about half of the oil.

Then you reach the maximum production, it's reasonable. The last half would be harder to get, so it came out slower and slower. It kind of followed a bell curve. He rationalized if he knew how many oil fields there were and what was in there, he could have all the little bell curves, and you would get a big bell curve that would tell us when we were going to reach the peak. He said that was going to be 1970. Right on schedule it happened. He also said that we were going to reach peak oil, the maximum production of oil in the world about now.

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Now, the question I've been asking for 30-some times I've been on the floor